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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/771,541	02/05/2004	Hirohisa Sugihara	248511US2	2809
22850	7590	12/01/2005	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			WILLIAMS, DON J	
			ART UNIT	PAPER NUMBER
			2878	

DATE MAILED: 12/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

AK

Office Action Summary	Application No.	Applicant(s)	
	10/771,541	SUGIHARA ET AL.	
	Examiner	Art Unit	
	Don Williams	2878	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on February 5, 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 February 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

Claims 9-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 9-16 recites the limitation "a contact image sensor module having" in claims 9-16. There is insufficient antecedent basis for this limitation in the claims. No antecedent basis for inclusion of two contact image sensor modules. Only a contact image sensor module has been claimed. For examining purposes, only this limitation will be treated as an image reading apparatus that includes two contact image sensor modules disposed as claimed, each in separate housings.

Claims not specifically mention are indefinite due to their dependency.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Miyashita et al in view of Herloski (5,773,818).

As to claim 1, Miyashita et al disclose a light source (2), a document (26); a lens (5); a light-receiving part (6); a housing (1); a transparent element (3), and a light shielding (4) extending to a width (27) in a direction orthogonal to that in which the document travels, (see figure 1, column 1, lines 20-60, figure 3, column 4, lines 60-67, column 5, lines 1-25). Miyashita et al fail to explicitly teach a light source that includes infrared light. Herloski discloses a light source that includes infrared radiation. It would have been obvious for one ordinary skill in the art to include infrared radiation as disclosed by Herloski to improve the capability of distinguishing the image reading wavelengths or light that are incident on a document that is scanned across the transparent glass and wherein reflected light from the document pass through the transparent glass carrying specific information that is received by the detector and converted in to electrical signal allowing the contact image sensor system to perform at an optimal level, (see figure 3, column 6, lines 1-25).

Claims 2 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyashita in view of Herloski as applied to claim 1 above, and further in view of applicant admitted prior art (Figure 14) hereinafter referred to as AAPA.

The modified Miyashita et al disclose the transparent element (3) has a two-tier structure comprising the light shielding element (4) and the transparent element (3). The modified Miyashita fail to disclose the transparent element (3) on a side of a document face (26) draws near is hemispherical and the infrared light shielding (4) is provided on the planar side of the hemispherical part of the transparent element (3). It would have

been obvious for one of ordinary skill in the art to further modify Miyashita to include the hemispherical aspects of AAPR to enhance positioning of the document for readout.

As to claim 13, the modified Miyashita et al disclose the transparent element (3) has a two-tier structure; the transparent element (3) on a side of a document face (26) draws near is hemispherical; and the infrared light shielding (4) is provided on the planar side of the hemispherical part of the transparent element (3), (see figure 3, column 5, lines 1-25).

Claims 3, 5, and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sawada et al in view of Herloski (5,773,818).

As to claim 3, 5, and 7, Sawada discloses light sources 12(12G), 12(12R), 12(12B) for irradiating two or more sorts of light, a document (D); a lens (13, 13a) for focusing reflected light from the document (D); a light-receiving part (20) for receiving the reflected light focused by the lens (13); a housing (10) for containing at least the lens (13, 13a) and the light-receiving part (20); a transparent element (11) for passing through the reflected light; and a document guide (11) to which the document draws near or comes into contact with, the document guide (11) is supported by the housing (10) attachably to or detachably from the housing (10), and fixes the transparent element (11), (see figure 1, paragraph [0023]). Sawada fails to explicitly teach the inclusion infrared light. Herloski discloses a light source that includes visible light and infrared radiation. It would have been obvious for one ordinary skill in the art to include infrared radiation as disclosed by Herloski to improve the capability of distinguishing the

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image reading wavelengths or light that are incident on a document that is scanned across the transparent glass and wherein reflected light from the document pass through the transparent glass carrying specific information that is received by the detector and converted in to electrical signal allowing the contact image sensor system to perform at an optimal level, (see figure 3, column 6, lines 1-25).

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Miyashita et al in view of Herloski and further in view of Tsai (5,999,277).

With respect to claim 9, the modified Miyashita et al disclose a light source (2), a document (26), a lens (5), a light receiving part (6), a housing (1), a transparent element (3), and a light shielding (4) extending to a width (27) in a direction orthangonal to that in which the document travels, (see figure 1, column 1, lines 20-60, figure 3, column 4, lines 60-67, column 5, lines 1-25). The modified Miyashita fails to disclose an arrangement that comprises 2 contact image sensor modules disposed as claimed. Herloski discloses a light source that includes infrared radiation. Tsai discloses two contact image sensors (CIS) having opposite optical axes, housings fixed to each other and the capability of reading out both faces of the document. It would have been obvious for one ordinary skill in the art to include infrared radiation as disclosed by Herloski to improve the capability of distinguishing the image reading wavelengths or light that are incident on a document that is scanned across the transparent glass and wherein reflected light from the document pass through the transparent glass carrying specific information that is received by the detector and converted in to electrical signal

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allowing the contact image sensor system to perform at an optimal level, (see figure 3, column 6, lines 1-25).

It would have been obvious for one ordinary skill in the art to include two contact image sensors (CIS) integrated with each other by way of mechanical and electrical supporting components as disclosed by Tsai to improve the operability of the two contact image sensors (CIS) allowing both to function simultaneously in the x-y directions along the transparent table wherein images with high resolution are printed on both sides of the document during the scanning process, (see figure 3, column 3, lines 40-65).

Claims 10, 11, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sawada in view of Herloski, Tsai and further in view of applicant admitted prior art (Figure 14) hereinafter referred to as AAPA.

With respect to claims 10, 11, and 12, the modified Sawada discloses light sources 12(12G), 12(12R), 12(12B), a document (D), lens (13, 13a), a light receiving part (20), a housing (10), a transparent element and document guide (11). The modified Sawada fails to disclose infrared light and an arrangement that comprises 2 contact image sensor modules disposed as claimed. Herloski discloses a light source that includes infrared radiation. Tsai discloses two contact image sensors (CIS) having opposite optical axes, housing fixed to each other and the capability of reading out both faces of the document. It would have been obvious for one ordinary skill in the art to include infrared radiation as disclosed by Herloski to improve the capability of

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distinguishing the image reading wavelengths or light that are incident on a document that is scanned across the transparent glass and wherein reflected light from the document pass through the transparent glass carrying specific information that is received by the detector and converted in to electrical signal allowing the contact image sensor system to perform at an optimal level, (see figure 3, column 6, lines 1-25).

It would have been obvious for one ordinary skill in the art to include two contact image sensors (CIS) integrated with each other by way of mechanical and electrical supporting components as disclosed by Tsai to improve the operability of the two contact image sensors (CIS) allowing both to function simultaneously in the x-y directions along the transparent table wherein images with high resolution are printed on both sides of the document as the document travels across the transparent sheet table during the scanning process, (see figure 3, column 3, lines 40-65).

Claims 4, 6, and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sawada et al in view of Herloski, Tsai and further in view of Adachi et al (5,144,458).

As to claims 4, 6, and 8, the modified Sawada discloses document guide (11), (see figure 1, paragraph [0023]. The modified Sawada fails to disclose slit. Adachi et al disclose slit or step formed in the transparent layer. It would have been obvious for one ordinary skill in the art to include a slit or step formed in the transparent layer as disclosed by Adachi et al to improve the penetration of the incident light through the transparent layer onto the document wherein reflected light from the document is

focused in to the detector in order to ensure a high resolution and a high signal to noise ratio allowing the contact image sensor system to produce a quality and clear image picture, (see figure 9, figure 10, column 5, lines 15-30).

Claims 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sawada et al in view of Herloski, Tsai and applicant admitted prior art (Figure 14) hereinafter referred to as AAPA, and further in view of Adachi et al (5,144,458).

As to claims 14-16, the modified Sawada discloses document guide (11), (see figure 1, paragraph [0023]. The modified Sawada fails to disclose slit. Adachi et al disclose slit or step formed in the transparent layer. It would have been obvious for one ordinary skill in the art to include a slit or step formed in the transparent layer as disclosed by Adachi et al to improve the penetration of the incident light through the transparent layer onto the document wherein reflected light from the document is focused in to the detector in order to ensure a high resolution and a high signal to noise ratio allowing the contact image sensor system to produce a quality and clear image picture, (see figure 9, figure 10, column 5, lines 15-30).

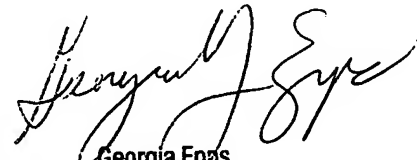
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Don Williams whose telephone number is 571-272-8538. The examiner can normally be reached on 8:30a.m. to 5:30a.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Epps can be reached on 571-272-2328. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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